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REMARKS,

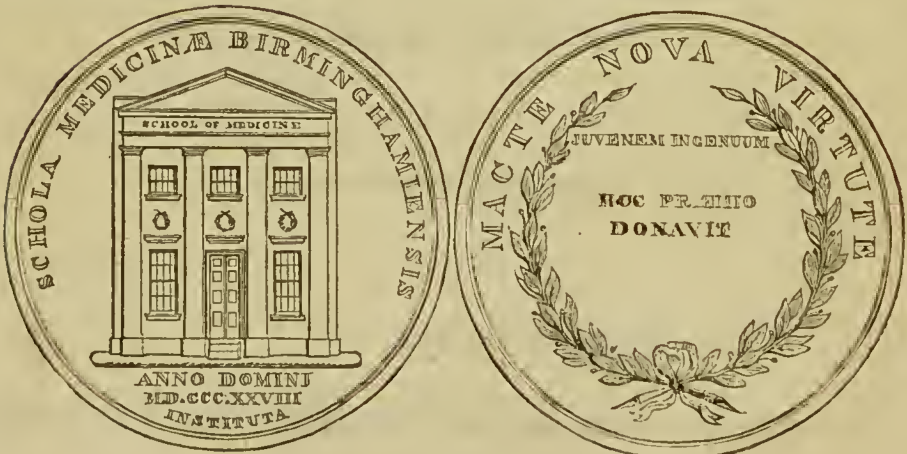
ON

THE IMPORTANCE OF EXTENDING THE MEANS FOR THE CULTIVATION OF MEDICAL SCIENCE IN BIRMINGHAM,

BY

ONE OF THE LECTURERS OF THE SCHOOL OF MEDICINE.

PATENS OMNIBUS SCIENTIA.



BIRMINGHAM:
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1831.

TO THE

PATRONS OF THE SCHOOL OF MEDICINE,

TO THE GOVERNORS OF THE GENERAL HOSPITAL,

TO THE MEDICAL OFFICERS

OF

THE PUBLIC MEDICAL INSTITUTIONS OF BIRMINGHAM,

THIS ADDRESS,

HAVING FOR ITS OBJECT

THE EXTENSION OF THE MEANS FOR CULTIVATING

MEDICAL SCIENCE IN THIS TOWN,

IS

MOST RESPECTFULLY INSCRIBED,

BY

THEIR OBEDIENT HUMBLE SERVANT,

ONE OF THE LECTURERS OF THE SCHOOL OF MEDICINE.

PREFACE.

The following Remarks originated in the eloquent Address of Edward Johnstone, M. D., delivered on the occasion of the Anniversary Dinner, given by the Students to the Lecturers of the Birmingham School of Medicine, June 4th, 1831. *In the hopes of giving an impulse to the existing system for educating the Medical Student, I have presumed to call the attention of the Public to the subject; at the same time anticipating that an Institution which has for its object the promotion of the public good, will meet with every aid and support from a Town distinguished by its liberality.*

24, *Temple-row, June* 18, 1831.

REMARKS.

GENTLEMEN,

CONSCIOUS of the importance of my subject—a subject in which you are deeply interested—I presume to address you without apology; first, as the guardians of important trusts; secondly, as members of society. I need not observe, that, at the present day, the cause of free and liberal education is rapidly progressing—the extension of knowledge of every kind has been the aim of public exertion. Within these few years, institutions have arisen around us, devoted to the useful and liberal arts, and have dignified and ornamented the town; amongst which, I trust, the School of Medicine claims an important rank. When we consider the vast field that Medical Science at this day embraces, and that an accurate knowledge of its different branches is become the necessary passport to character and success, every aid which can be afforded by an enlightened public for the promotion of this great object, must be deserving of encouragement, and, indeed, in the present improved state of society, is absolutely required.

If we turn to the Continent, the Medical Schools in France, at Strasburg, Lyons, Montpellier, and Paris, have, under the protection of the Government, arrived at distinguished celebrity, and are visited by Students of every nation. The hospitals, museums, and libraries are *free* to an unlimited number of Pupils; the hospital visit is made each morning by the Physician and Surgeon, at six o'clock in the summer, and at eight o'clock in the winter; and after the visit, an hour is devoted to explaining the different cases, and modes of treatment adopted. The purposes of clinical instruction do not interfere with the attention due to the sick and suffering, whilst they serve as an additional stimulus to the exertions of their medical and surgical attendants. Under the usual and proper regulations, experience has fully proved that no inconvenience arises from the admission of Pupils into the wards. In Germany, institutions conducted on the same principles have given rank to Stockholm, Frankfort, Jena, Erlangen, Tubingen, Bamberg, Leipsic, and Goettingen; and within the last twenty years, Universities on a similar plan have been established at Landshut, Bonn, and Berlin, and accomodate nearly two thousand five hundred Students. In Italy medicine is taught with the same success at Genoa, Turin, Pisa, Sienna, Bologna, Milan, Pavia, Florence, and Rome. America has followed the noble impulse given by Europe, and justly prides herself upon her Schools of Medicine. In this country alone has this most important branch of education, in the provinces, remained almost stationary. The spirit of the times is extending to all large towns: Schools for the cultivation of medical knowledge have been formed at Leeds, Sheffield, Manchester, Bristol, and Liverpool: and the Governors of the different charities have rendered their institutions conducive to the best purposes of instruction. At the infirmary at Liverpool there are three classes of Pupils: first, House-pupils, who are apprenticed to the House-surgeon, and whose *fees* belong to the *funds* of the hospital; secondly, Out-pupils, who are admitted both to the medical and surgical practice for a period of not less than one year, upon paying a fee of twenty guineas, which belongs to the Medical Officers in common; thirdly, the Medical Officers have the *unlimited privilege* of introducing their own Pupils, who attend exclusively to their individual patients. The whole body of Pupils witness the entire practice of the house, medical and surgical, and any clinical lectures which may be given are open to them.

At the Manchester Royal Infirmary, which contains 185 beds, the medical and surgical Pupils *are not limited*: at the present time there are twenty-six Pupils attending the surgical practice. *Six Pupils* are apprenticed to the institution, at the fee of two hundred and sixty guineas each; sixty guineas of which are appropriated to a library fund; by which means a valuable collection of books has been formed, open to the Students upon paying one guinea deposit, which is returned to them when they cease to use the books. This portion of the fee was formerly given up by the Governors to the Surgeons, who now allow it to be appropriated in the purchase of books; and should more works be ordered in the the course of the year than the funds are able to meet, the Governors with distinguished liberality make up the deficiency from the revenues of the charity.

When I look to the opulence of Birmingham, to its situation in the centre of a large manufacturing district, to its vast population—exposed hourly, from the nature of the various employments, to accident and disease—to its valuable and well-regulated charities; I have a right to claim superior advantages for the complete establishment of a Medical School on a grand, comprehensive, and liberal scale.

The following statement will point out the practical advantages offered by the public Institutions:—

GENERAL HOSPITAL.

Four Physicians. Four Surgeons.

Number of beds, 180.

In-patients from the 25th of March 1830, to the 25th of March 1831, . . .	1414
Out-patients during the same period, . . .	1700
	3114

DISPENSARY.

Three Physicians. Six Surgeons.

Medical cases from the 25th of March 1830, to the 25th of March 1831, . . .	2580
Number of surgical cases during the same period,	426
Midwifery cases . , ...	782
	3788

FEVER HOSPITAL.

One Physician.

Patients admitted from March 25, 1830, to March 25, 1831, ...	126

TOWN INFIRMARY.

Six Surgeons.

Number of beds, 134

Patients admitted from March 25, 1830, to March 25, 1831	872
Out-patients attended during the same period	14589
Midwifery cases out of the house . . .	531
Midwifery cases in the house	70
	16062

EYE INFIRMARY.

One Physician. Two Surgeons and an Assistant Surgeon.

Patients attended from March 31, 1829, to March 31, 1830	1464

Thus the public institutions administer medical and surgical relief to upwards of *twenty-four thousand patients,* and offer practical information equal to any possessed by the celebrated Continental Universities; but from the regulations which exist, these advantages are confined to a *very few* students.*—Impressed with the wide extent of information opened by this town, when aided by systematic lectures, three years ago the School of Medicine was founded, and honoured by the most distinguished patronage, and has succeeded beyond the most anxious expectation of its warmest supporters. A complete course of professional instruction has been offered to the Medical Student. Lectures have been delivered on General Descriptive Anatomy and Physiology, Materia Medica and Medical Botany, Chemistry and Natural Philosophy, Principles and Practice of Medicine, Principles and Practice of Surgery, Principles and Practice of Midwifery, and Botany. Means of prosecuting practical anatomy have been extensively afforded. A library of books for the Student and an anatomical museum have commenced to be formed. Medals have been offered to the meritorious student, and awarded at public examinations. Five guineas, for a Prize Essay, has been presented by Thomas Lane Parker, Esq.; ten guineas are offered by Edward Johnstone, M. D. for the best Essay on the Anatomy, Physiology, and Pathology of the Ganglionic System of Nerves; and five guineas by Edward T. Cox, Esq. for the best Essay on Inguinal Hernia; both to be awarded in 1832, the latter premium by that distinguished Surgeon, Sir Astley Cooper, Bart. A commodious lecture-room, chemical-room, and anatomical-room have been erected. The liberality of the Royal College of Surgeons, London, and the Apothecaries' Company, have placed the Institution on the same footing as the Metropolitan Schools. *Nine* Pupils have obtained their diplomas from the latter body, without any attendance on Lectures delivered elsewhere. Upwards of forty Students have followed the courses during the last session, and of the number, twelve resided in the adjoining counties.

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* At the Hospital, the Physicians' Pupils are limited to twelve, and the same number are only allowed to the Surgeons.

When we reflect upon the wide field the sciences open, which fall within the province of medical education—a field which is only surpassed by the importance of those sciences as branches of general, as well as professional education—every effort, every exertion, which has for its object to diffuse such information—in which we are all deeply interested, not only with regard to the welfare of the community, but also in a national point of view—ought to be strenuously upheld.

Anatomy is not only the basis of the healing art, but its importance is shewn in theology, natural history, natural philosophy, and the fine arts.

The Theologist has proved, from the beautiful and admirable structure of the human frame, the existence of design and goodness in the creation. The Naturalist has based his classification of the animated world on internal and external structure; has formed families on this unerring principle, both with repect to their habits and economy. The uses of Anatomy in natural philosophy, are chiefly to be found with regard to the eye and ear: from the wonderful construction of the eye, the rays of light are refracted, form a focus on the retina, and by the optic nerve the impression is conveyed to the brain: by the exquisite and curious mechanism of the ear, pulses of sound are collected and transmitted by the auditory nerve to the brain. The provisions for the admission and refraction of light, are founded on the general laws of optics; and those for the transmission of sound, on acoustics. To the sculptor and painter the study is indispensible. In Algarotti's Essay on Painting, it is observed, "to ask if the study of anatomy is requisite to a painter, is the same thing as to ask, if, in order to learn any science, a man must first make himself acquainted with the principles of it. A man who is not acquainted with the form and construction of the several bones which support and govern the human frame, and does not know in what manner the muscles moving these bones are fixed to them, can make nothing of what appears of them through the integuments with which they are covered, and which appearance is, however, the noblest object of the pencil." The truth of these remarks is exemplified in some of the most celebrated statues, both modern and ancient. In the Belvidere Apollo, in the Farnese Hercules, in the Laocoon, and even in the statue "that enchants the world," the Medicean Venus, numerous anatomical defects exist.

That Medicine is an important general study and one that demands the deepest attention, may be inferred from its intimate connection with moral philosophy. No individual can be ranked a Physician who is unacquainted with mental phenomena, with the moral sentiments and secret workings of the human heart; consequently, the study of medicine, comprehends all that can dignify and adorn the moral and intellectual character, and its professors have developed some of the most magnificent views for extending and improving human happiness.

The extensive utility of Chemistry is shewn by its immediate connection with every art or science: it adds not only to the comfort, but almost to the very subsistence of civilized life. It points out to us the nature of all simple substances and their action upon each other: it treats of the assay of metals and their reduction to a reguline state; it shews the analysis and properties of all the products of animalization, and the consideration of those vital junctions which, like respiration, appear to be for the most part chemical. In agriculture its use is very important, as it explains the phenomena of the growth and nutriment of vegetables, the nature and properties of soils, and manures; it explains the principal processes of those arts and manufactures, as bleaching, dyeing, tanning, &c. &c. Lastly, it enlarges the mind, by affording a more extensive and intimate knowledge of nature, and procures for us some of the most sublime pleasures and rational enjoyments; in fact, it is now become a necessary branch of liberal education. The expansive power of steam was long known as a simple and unproductive fact in natural philosophy, but by the application of this power to mechanics the most stupendous effects have been the result; and these extraordinary means of multiplying the mechanic force of man have indirectly contributed to his advancement and welfare: hence the utility of cultivating mechanics and natural philosophy.

Materia Medica is intimately connected with natural history and chemistry; it explains to us the properties of the products of the three kingdoms of nature, pointing out what may be useful and beneficial, and what detrimental to man; and, by its minute researches into the operation of substances on the animal functions, it aids and powerfully advances the study of life. Of the science of Botany much might be said, it is the most lovely part of natural history, an elegant and useful accomplishment. It offers to the mind a source of the most innocent enjoyment. Who can survey the vegetable world, the beauty, order, and design displayed in the simplest flower, without being led insensibly

"From nature up to nature's God."

I have not dwelt upon the science of midwifery, as it is more especially a subject confined to the profession; but that the student should have every means opened to him, must, from the importance of the subject, be obvious to the public.

These are the sciences that have given fame in bye-gone days to Mynors and Freer, to Ash and Withering, to Priestley, Bolton, and Watt; and these sciences, with the local advantages we now so preeminently possess, if cultivated with spirit and energy, cannot fail to render this town the pride, the boast of our country. That these views are not chimerical let us look to Edinburgh. The University was founded in the year 1583, but not till the year 1694 was any plan brought forward for the cultivation of medicine. At this period students of this country completed their studies at Padua, Pisa, and Leyden. Dr. Pitcairn, after residing at the latter celebrated University, conceived the plan of establishing in his native land a regular School of Medicine: his liberal scheme was not seconded. In 1720, Monro, after studying under the celebrated Boerhave, commenced as a private teacher of Anatomy, and was joined by the indefatigable Alston, on Materia Medica. These were the first public courses that had ever been given at Edinburgh. From the perseverance and reputation of these teachers, they were appointed to the University. The city of Edinburgh favoured the generous design, and other Professorships were formed, filled by Innes, Plummer, St. Clair, and Rutherford; and thus a private school laid the foundation of that seminary whose reputation has drawn Students from every nation in the world, which has fostered genius, brought forth talent, and whose annals enumerate amongst its Professors the names of the Monros, Home, Whyte, Gregory, Bell, Cullen, Duncan, and many others, who have added to the fame and honour of their country.

To shew that science and commerce are not incompatible, let us look into the records of ancient history. How many nations have arrived at grandeur, wealth, and power, when science was cultivated at the same time. When Alexandria became the emporium of all the trade between India and Europe it was renowned for its learning; and at the period when "trade was her life and glory" the largest library that ever had been, was instituted, and the first Medical School.

Having now endeavoured thus briefly to explain the objects, enforce the necessity, and shew the important results of a School of Medicine, I beg leave to state that these views are founded on actual observation: having visited the principle Institutions of England, Ireland, and Scotland; of France, Switzerland, Germany, and Italy; I unhesitatingly avow that none possess superior advantages to this town and neighbourhood.

I appeal confidently to the distinguished patrons of science and literature earnestly to support this plan. I appeal to the Governors of the Medical Institutions of this town, more especially the General Hospital, to adopt some arrangement for the more liberal access of Students, under certain restrictions and regulations, to its valuable wards; by which means the cause of science and humanity will be promoted, and the funds of that noble Institution will be *considerably augmented*; so that the privilege of admission, I believe, might be restored to the one guinea subscriber. I appeal to the Medical Officers to aid the system, to afford clinical instruction to the Student, to lay open the book of nature, and not to allow the exertions of several distinguished individuals to remain unseconded.*

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* Acknowledgements are especially due to Dr. John Johnstone and Dr. Booth for their clinical lectures, also to Mr. Hodgson for his surgical lectures occasionly illustrated by clinical remarks.

I would appeal to the Governors of the School founded by King Edward VI., at some future period, on the increase of their funds, to include in their scheme of education Medical Science, and to afford to the Medical Student the same advantages which are offered to the Clerical Scholar; and, lastly, I trust the Committee of the Botanic Garden, which *originated* with the School of Medicine, will open with liberal hand its valuable stores, to aid this grand object.

In this Address, I may, perhaps, be accused of presumption; but I proudly disdain every other feeling than an ardent wish to exalt and improve the character of my profession, and to encrease the physical and intellectual power, and happiness of man. What I have presumed to suggest, it will be for others to adopt. I fear not that the School of Medicine will be fostered and supported; and that the day is not far distant, when the expanded views of Edward Johnstone will be realized, that "*Birmingham will become the seat of a grand scientific and commercial college.*"

APPENDIX.

NAMES OF STUDENTS WHO HAVE OBTAINED MEDALS.

1830.

Class. Anatomy.

	Students' Names.	*Examiners.*
First Silver Medal	Mr. Betts	I. B. Stewart, M. D. Cant.
Second Silver Medal	Mr. Palmer	G. Pilcher, Esq. London

Surgery.

First Silver Medal	Mr. Palmer	G. Pilcher, Esq.
Second Silver Medal	Mr. Hammond	

Class. Materia Medica.

First Silver Medal	Mr. Bindley	J. Darwall, M. D.
Second Silver Medal	Mr. Hammond	John Eccles, M. D.
		W. S. Cox, Esq.

Class. Chemistry.

First Silver Medal	Mr. Hammond	R. Phillips, Esq. F. R. S.
Second Silver Medal	Mr. Bindley	

CLASS. PRINCIPLES AND PRACTICE OF PHYSIC.

	Students' Names.	*Examiners.*
First Silver Medal	Mr. Hammond	E. Johnstone, M. D.
Second Silver Medal	Mr. Heeley	

CLASS. MIDWIFERY.

First Silver Medal	Mr. Williams	J. Darwall, M. D.
Second Silver Medal	Mr. Hall	— Wickenden, Esq.

1831.*

ANATOMY.

First Silver Medal	Mr. Lloyd	Jones Quain, B. A. B. M. Lecturer on Anatomy, in London
Second Silver Medal	Mr. Walton	

SURGERY.

First Silver Medal	Mr. Bindley	Ditto
Second Silver Medal	Mr. Hutchinson	

MIDWIFERY.

First Silver Medal	Mr. Richards
Second Silver Medal	Mr. Rock

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* The Courses of the present year, viz. Materia Medica, Chemistry, and the Principles and Practice of Physic, are still going on.

Barlow, Printer, Bennett's Hill, Birmingham.